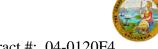
### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

## WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-027885 Address: 333 Burma Road **Date Inspected:** 29-Jun-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job site

**CWI Name: CWI Present:** Yes No N/A

**Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** 

**Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** Tower

### **Summary of Items Observed:**

Quality Assurance Inspector (QAI) Rodney Patterson was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

The QAI was present for a pre-inspection procedural discussion together with Caltrans QA Level III Robert Mertz, in order to discuss the ultrasonic response observed at scanning level (+29db) while performing Ultrasonic Testing (UT) of the tower Electro slag welded (ESW) shear plate connections. It was determined, through the pitch catch method, as well as with a 45 degree angled probe, that the signals observed on the screen throughout the entire length of the weld was caused by grain boundaries between the base material and the course grain Electro slag weld. The supplemental procedure SE-UT-D1.5-CT-108-ESW-R3 used for testing the Tower Shear Plate connections was revised to suit.

Ultrasonic Testing (Tower ESW-E-045- "B" from Y=1500~5940 Face A)

This QAI performed 100% Joint Ultrasonic Testing (UT), together with ABF QC inspector John Pagliero, on the Tower Complete Joint Penetration (CJP) butt joint shear plate connection designated as ESW-E-045- "B" from Face A. The QA/QC joint inspection team did not observe any planar longitudinal, or transverse indications from Y=1500~5940 (face A) at the time of inspection. The QA/QC joint inspection on this date was performed in accordance in accordance with AWS D1.5-2002, section 6, table 6.4 and supplemental procedure SE-UT-D1. 5-CT-108-ESW-R5.

Ultrasonic Testing (Tower ESW-S-044- "C" from Y=4400~5940 Face A)

# WELDING INSPECTION REPORT

(Continued Page 2 of 2)

This QAI performed 100% Joint Ultrasonic Testing (UT), together with ABF QC inspector Scott Kortum, on the Tower Complete Joint Penetration (CJP) butt joint shear plate connection designated as ESW-S-044- "C" from Face A. The QA/QC joint inspection team did not observe any planar longitudinal, or transverse indications from Y=4400~5940 (face A) at the time of inspection. The QA/QC joint inspection on this date was performed in accordance in accordance with AWS D1.5-2002, section 6, table 6.4 and supplemental procedure SE-UT-D1. 5-CT-108-ESW-R5.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### **Summary of Conversations:**

No relevant conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Patterson, Rodney	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer